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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,041

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Matthias Bohrt

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PATENT CENTRAL LLC
Stephan A. Pendorf
1401 Hollywood Boulevard
Hollywood, FL 33020

EXAMINER

SZEWCZYK, CYNTHIA

ART UNIT

PAPER NUMBER

1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,041	Applicant(s) BOHRT ET AL.	
	Examiner CYNTHIA SZEWCZYK	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/25/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the initial office action for BOHRT et al. application no. 10/568,041 filed February 13, 2006.
2. Claims 1-14 are currently pending and have been considered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1, 2, 4, 7, 8-13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 1 recites the limitation "CSF impurities" in lines 13 and 14. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 1 cites that "the process has the form of a glass-on-glass grinding process" but it is unclear which process is being referred to.
7. Claim 2 cites the ranges "approx. 0.3-1.5 mm" and approx. 0.6-1.1 mm". It is unclear which range the applicant is seeking.
8. Claim 4 recites the limitation "formed particles" in line 5. There is insufficient antecedent basis for this limitation in the claim.
9. Claims 7, 8, 12, and 13 recite the limitation "foreign substances" in line 3 of claims 7 and 8 and line 4 of claims 12 and 13. There is insufficient antecedent basis for this limitation in the claims.

Art Unit: 1791

10. Claims 10 and 14 cite multiple ranges for the granulometry. It is unclear which range the applicant intends.

11. Claim 11 cites multiple ranges for the proportion of waste glass granulate. It is unclear which range the applicant intends.

12. Claims 1 and 9 cite the granulometry of the ground waste glass "corresponding to the diameter of the outlet orifices in the peripheral wall of the spinner is approx. 0.1-2 mm". It is unclear whether it is the granulometry or the orifice diameter that is approx. 0.1-2 mm.

13. The claims are generally narrative and indefinite, failing to conform with current U.S. practice of providing positive active steps to define method claims. Additionally, the claims do not delineate the body of the claim with its preamble making it unclear what set of limitations sets forth the claimed method.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

Art Unit: 1791

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. Claims 1-7, 9, 10, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over HARADA (US 6,446,886 B2) in view of YANG et al. (US 5,900,037).

HARADA teaches a method for producing glass sands. HARADA discloses that waste glass (col. 1, lines 8-10) is crushed (col. 1, lines 46-48) and freed from impurities rough impurities (col. 1, lines 60-63). HARADA discloses that the crushed waste glass is then ground further (col. 1, lines 65-67) and sieved (col. 1, line 67 – col. 2, lines 1-2) so that oversized particles are sent back for further milling (col. 2, lines 14-17).

HARADA discloses that the grounding is accomplished by a glass-on-glass grinding process (col. 2, lines 10-12) as in instant claim 1. HARADA discloses that the glass is ground to a specified grain-size of less than 1 mm (col. 8, lines 50-51) which would fall into the range of instant claims 1 and 9.

YANG et al. teaches a method and apparatus for producing mineral wool. YANG et al. discloses that the molten raw material is fed into a spinner with a peripheral wall that comprises a multiplicity of orifices with small diameters wherethrough the molten material is spun off in the form of filaments which are subjected to a supplementary attenuating effect of gas (abstract) as in instant claims 1 and 9. YANG et al. discloses that the orifices have a diameter of 1-3 mm, which would overlap with the range of instant claims 1 and 9. It would have been obvious that the ground material obtained by HARADA et al could be used in the process of YANG et al. because YANG et al. discloses that materials of varying compositions could be used in the unit (col. 1, lines

Art Unit: 1791

21-22). HARADA et al. discloses that the obtained granulates could be used in the production of construction materials (col. 1, lines 24-30) and mineral wool is known for use as insulation. Additionally, using recycled glass as a raw material would cut production costs and help the environment (col. 1, lines 34-37).

HARADA discloses that the glass is ground to a specified grain-size of less than 1 mm (col. 8, lines 50-51) which would fall into the ranges of instant claims 2 and 10.

HARADA discloses that oversized particles from the grinder are sent back for further milling (col. 2, lines 14-17) thus creating a two stage grinding process as in instant claim 3.

Figure 5 of HARADA shows that the rotary blades (45) are placed horizontally in the second crushing stage as in instant claim 4. It would have been obvious that the apparatus would have been capable of accelerating the glass to the claimed velocity range of instant claim 4 by adjusting the speed of the rotary blades. HARADA discloses that the glass particles are transferred to an impact chamber (col. 7, lines 1-6, 13-16) and is then sieved out (col. 8, lines 14-20) and oversized particles are returned to the beginning of the process (col. 8, lines 55-60) as in instant claim 4.

HARADA discloses that the mill uses a centrifugal force to crush the glass fragments (col. col. 6, lines 63-66) (centrifugal mill of instant claim 5).

It would have been obvious that waste glass material is contained in the impact chamber as in instant clam 6 because waste glass material is passed through the primary and secondary crushing devices, therefore it would be waste glass material leaving the secondary crushing device into the impact chamber.

Art Unit: 1791

HARADA discloses that glass bottles can be used as the waste glass (col. 1, lines 19-20) as in instant claim 7.

HARADA teaches that the process produces a waste glass granulate as in instant claim 14. It would have been obvious that the glass granulate produced by the process of HARADA would have the same properties as the waste glass produced by instant claim 1.

17. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over HARADA (US 6,446,886 B2) in view of YANG et al. (US 5,900,037) as applied to claims 1-7, 9, 10, and 14 above, and further in view of GRAINGER (US 5,758,832).

HARADA as modified by YANG et al. teaches a method of producing waste glass granulate to be used in a process to produce wool fiber. Modified HARADA is silent as to the amount of waste glass used in the wool fiber process.

GRAINGER discloses a glass recycling system. GRAINGER discloses that it is known in the art include up to about 50% of recycled glass into glass melts for glass processes (col. 3, lines 5-7). It would have been obvious to use the range of GRAINGER in the process of modified HARADA because HARADA is silent as to the percentage of recycled glass used in subsequent processes and because YANG et al. discloses that materials of varying compositions could be used in the unit (col. 1, lines 21-22). Therefore, the claimed invention would have been obvious.

Art Unit: 1791

18. Claims 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over HARADA (US 6,446,886 B2) in view of YANG et al. (US 5,900,037) as applied to claims 1-7, 9, 10, and 14 above, and further in view of MIYOSHI et al. (US 2006/0065017 A1).

HARADA as modified by YANG et al. teaches a method of producing waste glass granulate to be used in a process to produce wool fiber. Modified HARADA discloses that the process uses waste glass such as bottles (col. 1, lines 8-9), but is silent as to what other waste glass can be used.

MIYOSHI et al. teaches a method of treating waste glass. MIYOSHI et al. discloses several sources of waste glass including bottles and flat glass from float processes (para. 0024). It would have been obvious that flat glass could have been used as the waste glass for modified HARADA because HARADA discloses the process is used for "glass articles such as glass bottles etc." (col. 2, line 41) indicating that any waste glass article may be used. Therefore, the claimed invention would have been obvious.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CYNTHIA SZEWCZYK whose telephone number is (571)270-5130. The examiner can normally be reached on Monday through Thursday 7:30 am to 5 pm.

Art Unit: 1791

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CS
/ Carlos Lopez/
Primary Examiner, Art Unit 1791